

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-13 are currently pending in the application. No claim amendments are presented, thus, no new matter is added.

In the Office Action, Claims 1-4 and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Applicants' background (herein, Background) in view of Tsunehara et al. (U.S. Pat. 6,907,260, herein Tsunehara); Claim 5 was rejected under 35 U.S.C. § 103 as unpatentable over Background in view of Tsunehara and Komatsu (U.S. Pub. 2001/0023188, herein Komatsu); Claim 10 was rejected under 35 U.S.C. § 102(e) as anticipated by Tsunehara; and Claims 6-8 and 11-13 were objected to as dependent upon a rejected base claim but would be allowable if rewritten in independent form including all limitations of the base claim and any intervening claims.

Applicants appreciatively acknowledge the indication of allowable subject matter. However, since Applicants consider that independent Claims 4 and 10 patentably define over the applied references, the remaining dependent claims are maintained in dependent form.

Regarding the rejection of Claims 1-4 and 9 under 35 U.S.C. § 103(a) as unpatentable over Background in view of Tsunehara, Applicants respectfully submit that independent Claims 1-4 and 9 recite novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 1 relates to a transmission power control method for controlling the transmission power of packet signals transmitted from a mobile station via an upstream radio channel in a radio communication system for allowing radio communications between base stations and a plurality of mobile stations. Independent Claim 1 recites, in part, that the method comprises the steps of:

measuring the traffic volume of the packet signals in the base station; and
switching between a first control method and a second control method based on the measured traffic volume in the base station...

Independent Claims 2-4 and 9, while directed to alternative embodiments, recite similar features. Accordingly, the remarks and arguments presented below are applicable to each of amended independent Claims 1-4 and 9.

With regard to Claim 1, the Office Action cites Background as disclosing the claimed invention with the exception of “measuring the traffic volume of the packet signals in the base station” and “switching between a first control method and a second control method based on the measured traffic volume in the base station.”¹ The Official Action cites Tsunehara as disclosing this claimed feature and states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the cited art to arrive at Applicants’ claims. Applicants respectfully traverse this assertion as Tsunehara fails to teach or suggest the claimed features for which it is asserted as a secondary reference under 35 U.S.C. § 103.

Tsunehara describes a transmission power controlling method for reducing an influence of incorrect control in a mobile communication system.² Tsunehara, however, fails to teach or suggest “measuring the traffic volume of the packet signals in the base station” and “switching between ***a first control method and a second control method based on the measured traffic volume in the base station,***” as recited in independent Claim 1.

In addressing these previously presented arguments, p. 9 of the Office Action notes that Tsunehara “suggests a selector for choosing either a 0 or 1 to instruct the mobile station on how to control power,” citing Fig. 31 and col. 2, ll. 38-42. However, the instruction

¹ Outstanding Official Action, p. 4.

² Tsunehara, Abstract.

output by the base station in Tsunehara is the result of a single control method that instructs the mobile station to either raise or lower power.

More particularly, col. 2, ll. 15-19; and 34-42 of Tsunehara describe that the upstream channel transmit power controlling signal generating portion 222 compares SIR_a to SIR_n with target SIRs given for each mobile station to generate transmit power controlling signals for each mobile station. As shown in Fig. 31, a measured SIR corresponding to each mobile station is compared to a threshold SIR and an output is generated that instructs a mobile station to increase or reduce transmit power. This comparison, or method, is one transmission power control method, and does not constitute “switching between *a first control method and a second control method based on the measured traffic volume in the base station*,” as recited in independent Claim 1.

In other words, measuring an SIR corresponding to a signal received from a single mobile station and comparing the SIR to a threshold SIR in order to instruct the mobile station to increase or decrease transmission power (e.g., by way of adjusting a TPC command), constitutes one method resulting in a plurality of possible outputs. The output of either a 1 or 0 are not separate methods, but instead are output as the result of the implementation of a single power control method.

In contrast, independent Claim 1 recites “switching between *a first control method and a second control method based on the measured traffic volume in the base station*.”

Tsunehara clearly does not switch between a first control method and a second control method, whatsoever, but instead simply measures an SIR received from a single mobile station, compares to a threshold SIR and instructs the mobile station whether or not to increase or decrease transmission power (e.g., performs a single method of inner loop power control). This is clearly not switching a first *control method* and a second *control method*, as recited in independent Claim 1.

Therefore, Background and Tsunehara, neither alone, nor in combination teach or suggest “***switching between a first control method and a second control method based on the measured traffic volume in the base station***” as recited in independent Claim 1.

Accordingly, Applicants respectfully request that the rejection of Claim 1 under 35 U.S.C. § 103 be withdrawn. For substantially similar reasons, it is also submitted that independent Claims 2-4 and 9 patentably define over Background and Tsunehara.

With regard to the rejection of Claim 5 under 35 U.S.C. § 103(a) as unpatentable over Applicants’ background material in view of Tsunehara and Komatsu, it is noted that Claim 5 depends from independent Claim 4, and is believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Komatsu fails to remedy any of the above-noted deficiencies of Tsunehara and Applicants’ background material.

Regarding the rejection of Claim 10 under 35 U.S.C. § 102(e) as anticipated by Tsunehara, Applicants respectfully submit that independent Claim 10 recites novel features clearly not taught or rendered obvious by the applied references.

Independent Claim 10 is directed to a mobile station for communicating with a base station similar to that recited in independent Claim 1 via code division multiple access (CDMA) radio channels. The mobile station includes:

... an extractor configured to extract the traffic volume of packet signals transmitted via upstream radio channels and a control method of the transmission power of the packet signals selected in the base station, from the notification signal; and
a transmission judger configured to judge ***whether or not to transmit the packet signals, based on the received power of the notification signals, the traffic volume of the packet signals and the control method of the transmission power of the packet signals.***

As disclosed in an exemplary embodiment at Fig. 7 and p. 23, l. 24-p. 26, l. 28 of the specification, a mobile station extracts the traffic volume of packet signals transmitted via upstream radio channels and a control method of the transmission power of the packet signal

selected by the base stations and determines whether a packet may be transmitted from the mobile station to the base station.

In addressing the previously presented arguments that Tsunehara fails to teach or suggest the claimed “a transmission judger,” p. 9 of the Office Action asserts that the reference “discloses a mobile station transmitting signals based on the values 0 and 1 for controlling the power.”

Tsunehara, therefore, merely describes receiving a transmission power control signal from a base station and controlling transmission power based on this signal. Tsunehara, however, at no point, discloses that the mobile station judges ***whether to transmit packet signals*** based on this received power control information, whatsoever. Instead, Tsunehara the received power control information is merely used to control transmission power.

Further, col. 3, lines 30-37 of Tsunehara, cited in the Office Action to reject this feature, describes that a transmit power calculating portion 19 determines a change in transmission power using a variation amount of the transmit power input from a selector and a current transmit power input from a transmit power maintaining circuit 20. Thus, the cited portion of Tsunehara simply describes calculating a changed transmission power using the variation amount of the transmit power input from the selector and the current transmission power input from a transmit power maintaining circuit to adjust the transmission power of the mobile station, but fails to disclose that the mobile station judges ***whether to transmit packet signals*** based on this received power control information.

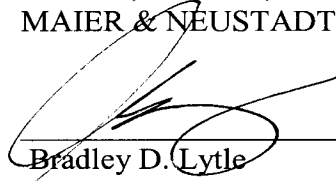
Therefore, Tsunehara fails to disclose a base station that judges “***whether or not to transmit the packet signals, based on the received power of the notification signals, the traffic volume of the packet signals and the control method of the transmission power of the packet signals,***” as recited in Claim 10.

Accordingly, for at least the reasons discussed above, Applicants respectfully request that the rejection of Claim 10 under 35 U.S.C. § 102(e) be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-13 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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